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ON THE EFFICACY OF CONSCIOUSNESS

VIEWING conscious creatures from a purely objective point of view the most general facts which may be observed as surrounding their conscious lives seem to be that they move, grow, nourish, reproduce, and die. Of these phenomena movement is the constant factor and so becomes the one upon which finally reliance is placed as giving evidence of consciousness. The double correlation of Professor Morgan, first, between the individual's own activities and his observed conscious states and, secondly, the inference from others' activities which are like his that their movements are correlated with conscious states, such as he observes in himself, is the mode of procedure here relied upon. Those beings which may be generally allowed to share in consciousness present a graduated series from low to high, or from simple to complex. If, now, comparison is made between the conduct of the creatures which form the extremes of this series, certain facts present themselves. The life activities of the highest are not so narrowly circumscribed. The highest have the widest geographical distribution; they are able to live under the greatest variety of environmental conditions as regards heat and cold, elevation above, and even below, the sea-level, and wetness and dryness of atmosphere. In general terms their habitats are not absolutely fixed by geographical and climatological conditions. Their wider distribution means more adaptability, a greater power to accommodate their activities to outer conditions. They have a higher capacity to make use of extra-bodily materials for clothing, shelter, instruments of offense and defense, and for purposes of transportation. Their reproductive power is very much lower than that of other animals. This, combined with the other features, makes necessary the more ready adjustment to surroundings which they show. The lowest form of adaptation is organic and suitable to the preservation of species and races. Natural selection is the method of racial adaptation, and is adequate to meet the requirements of slowly changing environments. In the development of life, this demand for quick adjustment seems to have been met at first by the plasticity of instincts, but this is still inadequate, for individuals as well as

species must be adapted. In individual adjustment conscious adaptation is required. The first example of this is found in habit formation, but the formation of a habit takes repetition long continued. And then habits become stereotyped and so, when further changes during individual life are necessary after the habit is formed, the habits are as unsuitable as most of those organic adaptations which in case of maladaptation call for the administration of the death sentence. Consciousness in the form of thought or thinking alone could suffice. The steps in its development and the method of operation we will now proceed to set forth.

By comparing the conscious being with the unconscious, or a given organism during conscious activity with the same organism in a state of unconsciousness, certain objective differentiæ of consciousness may be made out. Let one take careful note of the process of passing into sleep or under the influence of ether. There is first a subsidence of activity in general and then the disappearance of tone from the muscles. The latter departs from the most refined muscular groups first and then from the others in the order of their refinement. Waking up or coming to after etherization is marked by a return of tone to the muscles, and sometimes the order of reappearance may be made out to be the reverse of the order of disappearance. Muscle tone is a form of incipient muscular contraction. The motor centers are constantly discharging into their efferent neurones, and the activities of the muscles tend to excite returning currents to the central system. Section of the motor nerve causes a disappearance of tone, and section of the sensorial nerve works its disappearance in a similar manner, but not to the same extent. The sleeping person and the anæsthetized patient show only the minimum of muscular activity—respiration and circulation. The other muscle groups assume positions determined only by the force of gravity and their own elasticity. Professor Ribot makes the sameness in the feeling of self depend upon the constancy of the content in the streams of afferent currents which are always welling up from the bodily organs. Let any change take place in this flow and the sense of self identity is altered. The mechanism underlying muscle tone and bodily equilibrium consists of a motor center with its afferent pathway which is constantly discharging into the muscles, exciting incipient activities in the muscles. These, in turn, stimulate the sensory nerve endings in and about the muscles, and so set sensory currents flowing which reinstate central excitement. This is the circular activity of Professor Baldwin. The strength of this excitement often falls through fatigue and other influences by the law of subtraction of effects until sleep ensues. The rhythmical movements of wild animals in captivity, and the repeated activities of feeble-

minded children, as well as the motor automatisms of normal persons, seem to indicate that the process underlying muscle tone in some organs may rise above the level of the incipient stage. Such movements serve to stoke the cerebral fires when the degree of activity tends to fall too low. The appearance and disappearance of consciousness, however, synchronize pretty closely with beginning of tone and equilibrium and their recession.

Viewing consciousness more narrowly and in the light of the observations which the introspector may make, it appears that consciousness is now of one thing and now of another; it changes ceaselessly in its content. It is constituted of a stream of varied thoughts. The stream may be slow or rapid, deep or shallow, and broad or narrow. The images are sometimes clear, sharp, and distinct, and, again they are dim, vague, and without boundaries. All these words are simply figures of speech drawn from things. Since Professor James issued "The Principles of Psychology," the figure of a flowing stream has prevailed over others, and it sometimes seems to express a literal rather than a figurative truth. It, however, scarcely covers all the aspects of consciousness that present themselves to the observer. Consciousness seems at times to be on the lookout—to be alert. This phase seems to have impressed practical people, for this idea of searching is contained in the word attention which has come to be applied to this as well as the other phases of consciousness here mentioned.

On the objective side what may one observe as the accompanying phenomena in activity? If one "turns his attention" to an object and fixes it with his eyes or holds it in his hands, he finds that his eyes fixate now one point of the object and now another. They do not remain for more than a few seconds upon any given point. If he takes the object in his hands, he fumbles it, presses it, rubs it, and passes his fingers or palm over its various contours. Consider for a moment the experience of watching the figures in a wall paper or holding a bunch of keys in the hands. The various stimulations given by the object arouse different mental images of its parts or associates of the objects as a whole or of its separate parts. Now let us say that the lines and colors of the wall paper seem to suggest that the vertical lines converge. Immediately these lines seem to stand out clearer and examination is made to discover if this convergence is true or illusory. The eyes then fixate a given point and the whole body assumes an attitude which aids the process of visual examination, and so the process of changing fixation begins again immediately. If one slips the keys around his key ring and one of them sticks fast, then the movements of the fingers seem to be so directed as to shut out everything else and increase the efficiency of

the fingers which are now trying to slip the key along. The mental image of the lines and of the obstinate key becomes especially clear and sharp. In all these cases there is a carefully adjusted group of muscles which are about to undertake a work, and all the other muscles of the body assume positions to aid the one group in its work. If one lifts with the hand, the body braces itself that the lift may accomplish most. This may be called the attitude of effort which is correlated with attitudes of attention. The origin of this attitude is found in the instinctive activities of curiosity and of stalking. Manifestly in these are to be found the beginnings of the attitude of attention, but the term "attitude of attention" implies too much. The inference is that the attitude is the outcome of a state of mind. Rather is it a deep instinct in animals and the particular manner in which work is done among men. Some organ of the body is preparing for functional activity; it adjusts itself, and at the same time the general muscular organism joins in the support of the one about to function. Here is unity of action among the organs of the body, which is a general law of bodily activity; and a similar law is found to be true of conscious activity. The two unities are correlated.

Every process of attention is based upon the condition of action and reaction between the brain and some sense organ or group of muscles, which is only a special form of the neuro-muscular process underlying the tone of the muscles. When an object is attended to there are running off in the neuro-muscular mechanism currents of exceptional strength which in one direction come from the object and in the other from the central system. To have an image of the object is to have some sense organ active, setting currents flowing centripetally, and some brain processes of greater strength flowing in the opposite direction. Both must rise above the level of the tonal currents and must be prepotent and persistent. Such currents, both afferent and efferent, were first elicited when serious dealings were had with the object. Several such processes may exist at a given moment, but in different degrees of intensity. Each would involve a different sense organ or motor mechanism. General attention means no more than that the action and reaction are more widely distributed. Consciousness—being awake—is due to this process in a still more general form. To be conscious is to be subject to just such a ping-pong of recurring nervous activities that effect muscle tone on one side and brain discharge on the other. To be conscious of the things around one is to have mingled in the general ebb and flow of neural processes the weakened survival of the currents that were first active when acquaintance was had in the serious dealings with all these things. If there be one thing around us of which we are not aware, there is no trace of the happenings that were awakened

when its acquaintance was first made. The consciousness of an object means that the currents set agoing when it was met are joined as a predominant activity with innumerable other systems. When this one ceases to be predominant another from among the mass assumes the rôle, so that there is a constant shifting from one predominant process to another.

The object which is first only stimulus is constituted,—gets meaning—by the conduct one displays in the presence of the object. The eyes and hands make movements about it, or the object is handled and fumbled before the eyes. The object's presence is accompanied temporally by an image. This is the meaning of the object in one aspect. The image may be present later when the object is not. The view that is gaining some ground through the general influence of physiology and biology—the first with its concept of the reflex arc; and the latter with its theory of the origin of reactions—is that the object is just the thing that invites these reactions, and the reactions find their meaning in the object that evokes them. Every object invites activity, and the activities reconstitute the object. The situation of an object exciting a recurrent afferent flow towards the brain, which in its turn discharges downward into the sense organ, producing the movements for surveying the object, is felt in consciousness as an image. The image present in the absence of the object means that there is a weakened survival of the afferent and efferent currents which were aroused in the actual dealings with the object—when it was perceived. These incipient reactions may often be felt by sensitive persons, especially by those in whom images are most vivid. The meaning of an object is given when the neuro-muscular process that has supported the image passes over into the processes which give the next image. More of meaning will be given when this process survives as a background for several succeeding images, each successive image containing this as a part of itself. The fullest meaning, or images with the fullest meaning attached, are those which seem never quite to disappear. Their neuro-muscular processes are subordinate factors at all times. The meaning is, then, that of mental unity and mind-set.

Consciousness is antecedent to or correlated with some activities, and with some it is not. The traditional division among movements is here into voluntary and involuntary. Another division is that of voluntary and automatic or reflex. Genetic psychology presents a similar distinction by the words, controlled and non-controlled or uncontrolled movements. Voluntary and controlled belong together, and both terms imply the presence of consciousness—of images and ideas. The involuntary, automatic, reflex, and uncontrolled belong together, and as such they are without conscious correlate. Con-

sciousness of an action may precede the action in many different ways. The bare presence of an idea of a movement in the mind may precede and seem to cause the movement. Such a movement is generally voluntary and yet it is scarcely under control. Consciousness of a movement may mean that the movement which is to be executed has been decided upon after deliberation, and a special fiat has been issued that it shall forthwith be made real. The movement may be a part of a plan which is to be carried out, and hence care must be taken that there shall be no miscarriage or defeat of the plan.

When movements are considered objectively—studied with regard to the differences that can be made out among them—it is found that some follow the exciting stimulus closer than others, some repeat themselves with the smallest degree of variability, some show a striking tendency to recur in regular sequence and, when once excited, they unfold themselves in an invariable order and brook no interference, retardation, or delay; they proceed directly to their goals. In contrast with these there are movements that follow their real initiating stimuli at indefinitely long intervals; they repeat themselves with no regularity and with extreme variability. When they begin, they tend to stop, begin again, change direction, are accelerated and retarded, and finally reach their goals only after much hesitation and delay. The first are generally allowed to be reflex and automatic, and the latter are called controlled, attended, or voluntary movements.

Examples of controlled movements are to be found in the attempt to set a fairly heavy weight down upon a table or in seeking to make one's way across a dark room and out of the door. Both of these are cases of making movements in view of a plan which, in the first, is an image of the table with the weight upon it and, in the second, it is an image of the door with oneself passing through. In setting the weight down the movement of the hand is at first slow, perhaps, then more rapid, then retarded, again accelerated, checked, started a third time, and so on until the weight meets the table. In going out of the door one begins by groping with hand or foot. He then takes a step, or perhaps two, and begins to grope again. The method is that of "feeling one's way." As soon as one gets a stimulus of way clear, he plumps right into activity, only to be checked up and to wait for fresh data to be given. The last stage results from tactual stimulations either from the door-knob or from the door-jamb, eliciting random movements by which the body is finally guided through. The method in the first example may be called the method of successive approximations, and it is only a special form of the method of random groping which appears in the second. Professor Woodworth found that voluntary movements were more irregular and slower than auto-

matic, and they were over-appreciated. Attention to movements is found to have similar results upon the movements. In all these cases there is an end or goal to be attained. This amounts to a plan for the movement itself; it is an image of it. With the appearance of the image the movement begins to unfold itself. That arises from the very constitution of the image. The image is inseparable from the movement. As soon as the movements begin, through their kinesthetic consequences they are checked up on the plan to see whether they tally or not. These movements will continue until their results tally exactly with those contained in the image. If there should arise at any time any lack of coincidence between the two, the movement is stopped, a period of random change for the purpose of redirecting the movement ensues, and as soon as they coincide the movement is begun again. This accounts for the interruption, hesitation, and delay. After movements have been gone over a number of times they may unfold themselves in that invariable order that is the mark of the automatic. Movements to be highly serviceable must take on this character. The invoking stimulus must bear a high degree of probability that it is true to the situation, or the first indications of an object's presence must be right if it is to be acted upon automatically. When an attempt is made to carry out a voluntary movement, it is set before the performer as an image or it is charted. When the needle shows a deviation from the chart, the helm is put down and held there until the actual course is the same as that upon the chart. If no image is present, any stimulus to activity will cause the action to proceed directly to its goal without hesitation and delay. When an image appears the movement is checked so that its consequences may be noted.

The fiat is in the nature of a further plan lying back of the plan of the movement. Such a plan calls for the continued recurrence of the other plan in view of the kinesthetic results of actions that are being executed. Each action is a variant of the preceding, and each invites another and another until the image of the action shall have been realized in the motor consequences of one of them. The plan of the fiat is the first plan realized. This bears close resemblances to the process of getting meanings which has been presented.

Voluntary action presents itself in its double aspect as an image of a movement—a chart of activity—and as a series of hesitating, irregular, and rambling movements that are being checked up on the chart with a view to making the results coincide with the chart. Such results are obtained by holding up the chart, so to speak, and checking up the motor outcome of movements which are being carried out through successive approximations and by varied and fumbling activities. This idea of a chart upon which a log is being written is the crucial moment in voluntary action.

Now for the process of learning. It is generally held that consciousness is present during the learning of a movement, whether of the body in general or of the speech organs in particular and, when the movement is acquired, consciousness forthwith deserts it. A careful description of a movement thoroughly learned and the same movement in the process of learning should show the method of the learning process. The movement that is in the process of being learned is rambling, hesitating, uncertain, and varied. It has all the characteristics of the voluntary action. The learning is accomplished by starting the movement, stopping it, and then redirecting until it reaches its goal. In fact the learning proceeds by noting the various stages, and when it is not going according to plan, it is redirected by varying it until the necessary coincidence is found. When it has lost all its hesitation and uncertainty and unfolds itself in rapid and regular sequence, it is learned; it is then automatic.

Learning is of two kinds, of thoughts and of actions. The introspective observer remarks the presence in his stream of thought of new images or fresh and unfamiliar ideas, and the objective observer discovers new kinds of movements or new combinations of movement. Unfamiliar images enter the stream of thought by way of perception and imitation. Imitation may be of two kinds, imitation of another and self-imitation. New movements or new combinations of movement present two varieties; let us call these vicarious acting and conceptual acting. Under the first are included all those forms of acting where the substitution of another for the original exciting stimulus to an action takes place. Most forms of animal learning fall under this head. This is the associative memory of Professor Morgan. In conceptual acting a given object may invite a great variety of movements and a great number of objects may come to elicit one and the same response.

In perception an object is set up before the reagent. It elicits a variety of responses in the organ of sense. If it be the eye that the object appeals to, the eye begins to survey it. Each part of the object is fixated in turn. To fixate means to set up in vigorous form the general conditions of muscle tone and attitude of attention which have been described. The mechanism of muscle tone is set to functioning in some direction with prepotency. The object excites the nerve endings in the sense organ, the afferent nerves excite the central centers, and these discharge downward, provoking movements of adjustment now for one part of the object and now for another. This shuttle-like action maintained for a moment is the condition under which the introspector observes the image. Several presentations of the object give the image the character of a recognition, and later the conditions may be so maintained that the image may be felt when the

object is not present at all. It is then a memory. Further perception or repeated perceptions tend to bring out more and more detail because more of the actual points of the object are fixated. The object is in reality the plan which has been described before, and the sense organ is making movements which are being checked up on it. When the image gets the character of a memory, it may serve as a plan on which the movements may be further carried out. In the imitation of another the same essential conditions obtain. The exciting object is another person who moves arms, facial muscles, or speech organs. This serves as the model. Such a situation provokes random activities. When the activities of the subject coincide with the activities of the object-person as a plan, some other part of the person's movements become the exciting cause. This random movement continues until the activities of the subject fall in with the model set before him. In self-imitation the model is an image internally felt. Out of this as a stimulus random movements and activities proceed, the kinesthetic or other consequences of which are charted alongside of the image as a plan. When these coincide, activity ceases. The coincidence reproduces again the conditions of muscle tone, that is, the image gives rise to actions the felt consequences of which are a reproduction of the image. Self-imitation arises when some association, suggested by words, objects, or movements, throws into juxtaposition the old and familiar images of consciousness in such a way as to form new combinations. Such a situation invites random discharges just as a fresh stimulus would do. This is the field of ordinary thinking; and it may be remarked that ideas are given to random and varied changes just as activities are in spontaneous movements. However the changes may come about, any new combination of images is likely to set up varied activities until the combination is realized in action. The varied changes among ideas may find their rest and satisfaction in coherent systems of ideas. In this case ideas coincide with themselves, one idea serving as a plan for others. Wherever a plan, chart, model, image, or idea appears, it is due to a self-sustaining and self-repeating neuromuscular process of afferent and efferent currents that echo themselves back and forth between the central system and some motor mechanism. In the more complex thought the peripheral end is found in the vocal cords and perhaps in the fingers for writing.

Movement-learning through vicarious functioning is perhaps the largest and most important class of learnings. It plays the chief rôle in animal-training and it is always an important factor in the education of human beings. The mechanism of muscle tones here undergoes a peculiar modification that is of the highest significance. It will best be seen in an example. While chickens are excitedly

eating and searching for food that is scattered before them, let one call out in any manner whatsoever or beat upon a pan or other object. After a few trials the call or beating noise will invite the activities of searching for food. The movements of eating and searching set agoing afferent currents from the muscles and these reinvite the activities of the central centers. At the same time afferent currents due to the sound are coming in from the ear. These associate themselves with the afferent currents from the muscular activities and soon acquire the power of initiating the activities of searching which have been initiated by the searching activities themselves. This process gets further extension in the learning by conceptual acting.

Again resort is had to an example to introduce the subject of conceptual acting. The office boy comes to the gate that has received a new lock since he left the office. He seizes the little pin which, being slid back, draws the bolt. The pin on the new lock is a mere blind. He draws upon it without result. Now he presses it in, pulls it out, pushes it up, down, forward, and back, and still there is no result. He now takes hold of the lock by placing his fingers about it; he presses here and there and runs his fingers along the side. At last one finger hits upon a piece of metal on the under side which, by being pressed upward, draws back the bolt. He feels this movement and he repeats it in an experimental way several times, noting the result (these are the conditions for image forming). The next time he approaches the gate the hand is thrust out with the finger properly crooked to reach the bolt without the former random endeavor. Passing by the features here which have already been pointed out as elements in the learning process, it should be noticed that the movement for drawing the bolt has been represented—an image of it has been built up. The boy presents to himself the lock with the movement associated with it, when the lock is not yet there. The lock is the thing that will awaken this representation through which the movement is called out. The lock has taken on that degree of probability of its ultimate character which renders possible its being treated in an automatic way. The power of representing the thing with its appropriate response is responsible for the speedy adjustment. The power of representing the thing with its appropriate movement is of little value in actual experiences, and it is dispensed with wherever it is possible to do so, as the boy did, by developing an automatic response. But let it be supposed that locks of both these kinds are kept in use and their external appearances and surroundings are the same. Then when one approaches a lock, there is nothing for him to do but to employ this learning process through random endeavor. This means hesitation and delay, but the learning process is not very serviceable in actual situations; its function lies

in preparing for them beforehand. If the two locks are known—have been represented and acted upon in the represented plan—the individual coming to it may think of it as belonging to one of the two types—the lock is conceived as this—and then he acts suitably upon it as such. If now the lock experienced does not tally with the lock as conceived, he may conceive it in the other form and then act upon that in the manner suited to it. One may see that this is the same as the process of checking movements up on a chart. The example of the boy learning the combination of the new lock may be treated in this wise. When the boy saw the lock, he set it before himself as of one kind and acted appropriately to such a lock and awaited the outcome. When the lock did not work, he set it before himself as of another kind and acted appropriately to that. He continued in this way until he conceived it in the right way and so found the movement that opened it. The method here is that of random thinking—thinking in succession the various kinds of locks that are known. Both methods—random acting and random thinking—are employed in such cases, and it is not entirely clear which he may have used. However, as it is probable that both animals and young children make use of the method of random acting, the boy has employed it here. The other, however, is the method employed in most scientific investigations. Objects that are met with are conceived first in one way and then in another, and the movements appropriate to each are carried out in succession until one is found that will fit the case. But investigation can proceed in the opposite way. A given concept may be taken and search begun for objects that can be conceived in the manner of the concept. Both methods are only other ways of stating the last of the two named characteristics of controlled movements—a variety of movements can be made upon one and the same object, and a variety of objects can be acted upon in one and the same way. Both processes are accomplished through the power first to represent objects by images when they are actually present, and then to represent them when they are absent and to execute movements appropriate to them as so represented.

Just one more point, and that concerns a direct introspective analysis of the particular moment of thought or consciousness. The description given by Professor James of the empirical thought process is still so complete and adequate in most respects that little more need be done than to reproduce it to satisfy the purposes in hand. The empirical mind presents to the introspective observer a succession of thoughts in ceaseless flight one before the other. Each thought as it presents itself thinks and in thinking feels itself the same with the thought that has just gone before. Having

thought and thereby having been thought, the thought takes its place beside the other thoughts as belonging with them. Each thought thus changes right here from a thinker to a thought, from a representing to a represented thing. Just in the moment of thinking the thought splits into a thought that is object and a thought that thinks and represents. This division into a representing and a represented process is the particular differentia that runs throughout all of mind's operations. The thinker can then be with an object or represent it to himself in its absence. When a reality can appear both to be and to be represented at the same moment, when a thinking being can be with a thing and be away from it at the same moment, this must be looked upon as a variation of a biological sort that confers upon the possessor an advantage of such transcendent importance and value as to place all other creatures out of the running with him. The animals that took on these changes beat the others and have come to possess the earth through just these means, and the world is rapidly passing into the hands of those who have the highest degree of facility in representing things that are not present to them at all. In this very fact is displayed the chief characteristic of mind; it is the power to represent things that are not present and to act upon them just as if they were. In that way the animal organism may learn to act with perfect automatism upon things in their absence, so that when it is necessary to deal with them seriously the appropriate act is there. The preparation has been made beforehand, and this is the peculiar efficacy of consciousness. The steps by which this has been attained are the shuttle-like activity of the afferent and efferent currents in maintaining muscle tone, the heightened intensity of these in the attitudes of attention, their steady maintenance in the formation of the image, the indendent upholding of this image while the motor results of movements are checked up on it, the image as a chart by which activities are directed, stopped, and redirected, the image as a further plan upon which other images are charted in the resolved acts, and the image as a representation or conception by which various actions are carried out in succession. Images, ideas, thoughts, and representations are the individual elements of consciousness which may be observed and classified by the introspector of his own consciousness. The objective observer may note various activities and changes of movement, and the two observers may correlate these movements and the forms of consciousness. The various forms of movement and the changes taking place in them are due to the mode of operation in the mechanism just reviewed. Movements that are correlated with consciousness differ in characteristic ways from movements that are not so correlated.

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THE DILEMMA OF THE INTELLECTUALIST THEORY OF TRUTH

IS the intellectualist in his theory of truth an anarchistic subjectivist? Considerably to my own surprise, reflection has convinced me that he usually is. He insists that truth is a property of ideas (the term is used to include judgments, beliefs, all mental functions having cognitional value) *antecedent* to any process of verification; he insists that this antecedent self-possessed, self-contained property determines the working of an idea, or its verification. It follows that truths come into existence (arise or first subsist) when certain ideas are entertained. Until Columbus (or somebody else) entertained the idea that the world was round, the truth (being a self-contained property of the idea) that the world was round was non-existent. When the idea that the value of π is 3.1415926 arose in some one's mind, *this* truth was then and there created, and so on.[1] Such is the logical implication of this "antecedent property" theory. Note, further, the accidental and arbitrary way in which ideas arise, if truth is an independent property of them. They just happen. For the intellectualist can not deny that a large share of the ideas of men possess an antecedent property of falsity rather than of truth. If these properties of truth and falsity are ultimate, self-contained, and unique properties; if an idea is as likely to have one kind of property as the other; and if there is nothing in an idea which reveals upon bare inspection which of the two kinds of property is possessed, surely the intellectualist is committed to a belief in the thoroughly atomistic nature of truths.

A reply which the intellectualist might presumably make to these statements will be found only to enforce them. The reply is that the intellectualist holds that the self-contained truth-property of ideas consists in their relation of agreement or correspondence to things. Precisely: he makes the relation of agreement with things which constitutes truth a self-contained property of ideas. It is this very fact which commits him to the baldest kind of psychical idea-ism —not to dignify it with the title of idealism. If there were anything in the so-called cognitive self-transcendency of ideas which concretely lighted upon their intended objects so that their truth or falsity was self-luminous, the appeal of the intellectualist to "agreement with reality" would have some bearing; but since such phosphorescence is notoriously lacking, this so-called "self-transcendency" is obviously, after all, only an internal property of an idea *qua* idea.

I shall, however, be properly reminded that not all intellectualists

[1] I do not raise the question whether truths cease to exist when their ideas vanish, though this would seem also to follow.

make truth a property of ideas. Some make it a property of things, events, objects. That Columbus discovered America, that water is H_2O, are truths independent of *any* ideas. Well then, is not *this* type of intellectualism committed to absolutistic rationalism? If things, events, are properly called truths, then the universe must be conceived as a truth-system, *i. e.*, a system of relations of reason, or as "objective thought." The frantic disclaimers of many contemporary anti-pragmatists of sympathy with the Hegelian theory of truth (or that of Bradley or Royce) seem rather amusing. What escape from sophistic subjectivism have they except this theory? The other day I ran across the following quotation from Bossuet in Janet's Final Causes: "If I now ask where and in what subject these truths subsist, eternal and immutable as they are, I am obliged to own a being wherein truth eternally subsists and is always understood; and this being must be the truth itself, and must be all truth; and from it is derived the truth in all that is."[2] Why not, if truths exist *per se* in the order of nature?

The non-pragmatist, if logical, thus appears as either a pure subjectivist or as an objective absolutist. Usually he is not logical, but oscillates at will between the two positions, using one at need to cover up the weakness of the other.

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DISCUSSION

A FEW WORDS IN REPLY TO PROFESSOR MOORE'S CRITICISM OF "ANTI-PRAGMATISME"

THE interesting discussion of my "Anti-Pragmatisme" by Professor Moore in the issue of this JOURNAL for May 27 calls for a few words in reply.

That the ideas expressed in the work under consideration should not meet with the entire approval of pragmatists was to be expected; and that a critic should not present the author's views just as the latter would have done himself—there is nothing strange in that. This is human nature, and we all have our share of it. I may be justified, however, in asking to be allowed to correct just *one* false impression conveyed to the reader of Mr. Moore's criticism who would not be acquainted with the book itself. Mr. Moore gives it as my claim that: "Intellectualism is to save us from the 'consequences' of pragmatism—especially the American brand of pragmatism—which are: a crass materialism, a characteristic 'opportunism,' and philistinism in general, in which all moral control breaks down and

[2] English translation, page 395.

which is to aid in 'humanity cutting off its own head.'" I never spoke of "crass materialism"; neither do I believe that pragmatism, as a philosophy, is responsible for those things Mr. Moore has in mind, if they exist. Far from saying that they would be consequences of pragmatic philosophy, I said that pragmatic philosophy would save us from them when they threaten us.[1] I said that, because it is a philosophy which takes into consideration moral consequences, while philosophy—intellectualistic philosophy—aims at truth for the sake of truth only, pragmatism was useful: and I said further that, as, after all, life is more important to us than scientific thought, pragmatism ought to triumph, and probably will triumph, "not because it is true, but because it is false," *i. e.*, because scientific truth is sad: if humanity is happier when philosophers conceal truth from their fellow men, then philosophers ought to try to keep truth for themselves and not spread it abroad. What I reproach pragmatists for (and the reason why I call my book "Anti-pragmatisme") is that they try to persuade us that scientific theories agree with pragmatic or useful theories; they take usefulness not only in the logical sense, but also in the social or moral sense, thereby creating a confusion between philosophy and moral philosophy. Thus *against pragmatism I do not protest, but only against pragmatic philosophers.*

Now, in maintaining that truth regarding moral or social life is sad, am I saying something so surprising? I think not; for, is not, for instance, Christianity, which is the religion and belief of the best part of humanity, based on that very idea: truth is discouraging, and it is from the outside, from religious revelation alone that comfort can be brought unto us? So I may be "naïve," but I am at least in good Christian company.

"What a beautiful *reductio ad absurdum* of pure thought," exclaims my critic. No, not of pure thought, but of the gratuitous assumption, shared by pragmatists, that *truth* must necessarily be *good.* It is certainly good—I would rather say useful—to know truth, even if it is bad, so that we may parry its effects; but it remains bad in essence, anyway. It is good that a physician should know that a patient has appendicitis and not pneumonia, for the sake of the treatment of the illness; but it does not mean that any of the diseases is good in itself.

I am very sincerely sorry that I have been so misunderstood by a philosopher like Professor Moore. Such muck-raking criticism of

[1] I even did more: on pages 70–71 I warned myself against those who accused pragmatism of favoring "particulièrement les appétits grossiers." And I wrote: "Nous sommes bien certains qu'avec James le pragmatisme n'aura jamais que de hautes et généreuses visées."

modern society as he finds in my book I abhor as unworthy of a philosopher, who has to understand, not to judge. I had thought, from many accounts elsewhere, that I had succeeded in making myself clear;[2] I had also hoped that some sentences like the following, interspersed, on purpose, all through the book, would protect me against this interpretation, at least with those who, like Professor Moore, surely were not intending to write a sensational article:

"Nous ne reprochons nullement à la société d'être pragmatique c'est à dire de veiller à ses intérêts; nous trouvons cela parfaitement légitime au contraire, et du reste le mot "intérêts" peut être pris dans le sens le plus large et si l'on veut le plus élevê. Mais nous reprochons à une école de philosophes modernes de vouloir forcer, pour ainsi dire, la philosophie impersonnelle, la science amorale, la nature indifférente à parler le même langage que nos aspirations et nos passions,—et, même, nous le voulons bien, que nos généreuses *aspirations, que nos* nobles *passions"* . . . (pp. 3–4).

Or again: *"Nous sommes en parfaite sympathie avec l'œuvre sociale que se propose le pragmatisme—qui est en somme de rendre l'humanite aussi heureuse que possible—mais nous ne croyons pas que les moyens adoptes . . . soient les seuls possibles, ou même les meilleurs"* . . . (p. 239).[3]

With regard to "bossism," I agree that there are two explanations possible; either it is a natural and unavoidable product of our modern conception of democracy (which is not the *only* conception, by the way), as I maintain in my book; or it is, to use the picturesque expression of Professor Moore, a case of "social appendicitis" which can be operated upon. The question is: which one of the two explanations is correct? Professor Moore has not shown that mine was not.

Regarding "intellectualism" from the logical point of view, "many will fail to find anything new in support of it." In this Mr. Moore is right; nothing new need be said. My position is simply that pragmatism as an epistemological theory has obscured the philosophical sky, and that a wind of old intellectualism, which means nothing more than plain reasoning, should blow off the clouds. Yes, honestly, I think the "law of contradiction" is a good enough test, and

[2] Just as I write this the June number of *Current Literature* reaches me with an article on "Anti-Pragmatisme." Once more an author, though not taking my side, has seen and stated with perfect fairness my point of view.

[3] I know that some pragmatists protest against such "pragmatic" tendencies of their philosophy. That this is, however, if not consciously, at least unconsciously, the origin of this movement among philosophers, I have tried to show in my book. Whether I have succeeded or not, is immaterial for the point under discussion, which is: Have I, or have I not, accused pragmatism of breeding "crass materialism," and so forth?

I blame pragmatists chiefly for ignoring it. Now, we all know that some of them say they do not ignore it; and those who admit that they do, are considered "undesirable citizens in the realm of pragmatism" by the others. It is, therefore, a very delicate point; the fact is that when you accuse them of doing it they protest vigorously; but as soon as they are not watched, especially when they attack intellectualism, they advocate it in provoking fashion. I can not see anything except a violation of the principle of contradiction in this sentence of an article which I find in the same issue of the JOURNAL in which appears Professor Moore's criticism of my book; it is signed Helen Thompson Wooley: "Nor is it a damning admission to the pragmatist to agree that a given content of thought may be truth under one set of circumstances and falsehood under another, because for him truth is never inherent in the content of an idea, but always in its function" (p. 301). Do not pass, at your convenience, from the logical to the psychological domain—if you do it, this is enough for me to condemn your philosophy.

As to the "lack of anything like an adequate appreciation of the real issue," I will not discuss it; and this is my reason for it: if we believe pragmatists, not one yet except those who belong to the guild, has been able to understand them. No one criticising them has yet escaped this summary judgment—"You do not see the point;" but they keep on refusing to tell where exactly they are misunderstood. This they have been told over and over again; but Professor Moore once more adopts this very easy policy: "Into the issue itself we can not go."[4] Why not? When will those who have conscientiously tried to understand—and they are many—ever find light on pragmatism, if the adepts will not tell them? All Professor Moore consents to say is this: "For him [me] if logic and ethics are different, they must be independent, or even 'opposed.'" Yes! certainly, if you remain consistently in the domain of epistemology. The whole first part of my book endeavors to prove that, especially against Professor Dewey. There are not two logics, one for ethics and one for other departments of science. I am perfectly ready to let the independent reader decide between Professor Dewey and myself. *But* if this *is* the "point at issue"—as the quoted sentence seems to imply—I really do not see how Professor Moore can tell that I did not appreciate it. I discussed it, although perhaps not in the spirit of pragmatism, for almost 100 pages.

Just one word more: Professor Moore points out two passages where, according to him, I have misinterpreted Professor Dewey's

[4] Cf. Professor Dewey speaking of the chapter of "Anti-Pragmatisme" concerning him: "A becoming modesty forbids my dealing with it" . . ., in the *Philosophical Review*, July, 1909.

essay. I went over the difficult texts of Mr. Dewey again, and it seems to me that I understand them exactly. In the first one (pp. 293–4 of the criticism) I understand, just like Professor Moore, that *psychology* can not give us the moral ideal. Perhaps my critic was led astray by the French sentence where the negation in the second part of the sentence is not repeated; he translates: "The content of the moral ideal, *and that therefore.*" In the article published in English I had written myself, *nor therefore. . . .*[5] My second misinterpretation, according to Professor Moore, is that I substitute the word "judgment" for "character" to "make a case of contradiction." I do not see that it makes a difference, as judgment (and this is just the originality of pragmatism at this point) is a mere "expression of the character"—so if the character becomes logical, it would seem that the judgment would become so too.

Those are the only two passages where Professor Moore points out with precision that, according to him I did not do justice to Professor Dewey. Of course he picked out the worst . . . so I do not think that, after all, my criticism is of only a "captious" character.

With the above reservation, I express my thanks to Professor Moore for his criticism.

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REVIEWS AND ABSTRACTS OF LITERATURE

Has the Psychological Laboratory Proved Helpful? LORENZO MICHELANGELO BILLIA. *The Monist,* July, 1909. Pp. 351–366.

Under the above title Lydia G. Robinson has translated for the July issue of *The Monist* an address delivered by Professor Billia, of the University of Turin, before the International Congress of Philosophy at Heidelberg, on September 4, 1908. Professor Billia remarks, at the opening of his address, that many people will find in the statement of his question a negative reply, but adds that his intention is "to put a question without giving the answer, to state a problem without solving it." Yet we read, toward the conclusion of the address: "Even in simple negligence, even in that eagerness which has made of psychology a research into conditions and effects without consideration of endeavor and liberty, one may say that in spite of all its good intentions, the psychological laboratory destroys psychology and also ethics." This statement, which laboratory workers will read with amusement or surprise, but hardly with chagrin, does not warrant, in Professor Billia's opinion, the conclusion that the laboratory should be suppressed and its doors closed. "Not at all. I have said that I would state questions and not that I would draw conclusions. I would only make a proposition. It is not necessary to suppress anything or to close anything. It is necessary to

[5] This JOURNAL, Vol. V., p. 624.

uplift. Let us raise the standard of the laboratory. First of all it must become truthful. It can do so by dispensing with a name which is a contradiction. Psychology does not operate in a laboratory. The true laboratory of psychology is nothing but consciousness." The reader, however, who draws conclusions from what he reads, will naturally infer that laboratories should be closed if psychology does not operate in them.

There are three considerations which Professor Billia urges upon one who would estimate the laboratory's usefulness. The first of these is that psychology is destroyed by the psychological laboratory because the attempt is made in the laboratory to study the facts of consciousness outside of consciousness. In other words, the study of the conditions under which mental operations are performed tends to obscure the vision of what these operations are, while, as Professor Billia appears to believe, it is the particular office of psychology to exhibit these operations in their essential nature.

In the second place, the attempt to measure mental capacity or operations disregards the fact that other circumstances than those involved in the measurement may operate in a manner to destroy the value of the results attained. In illustration of this point, Professor Billia cites attempts to determine the limits of mental efficiency. He finds these attempts robbed of value by the fact that persons whose capacity appears exhausted are often aroused to extraordinary activity by some emergency which demands immediate action. In other words, reserve force, which he takes to be the important factor in mental capacity, can not be measured.

"Finally, the psychological laboratory leads us to treat mental facts as external objects of experimental research and curiosity. But mental facts are not that. The mind which we observe is nothing else than we ourselves who live and ought to exist in a certain manner." In this connection the familiar point is urged that observation of the facts of mental life does not leave the facts as they were before, and that psychology is thereby distinguished from all other sciences. "Nothing can be observed with regard to the self unless it be the self or a part of the self." The objective treatment of mental facts is, therefore, regarded as the destruction of psychology.

These considerations merit attention, not indeed because they afford a proper setting for the question, "Has the psychological laboratory proved helpful?" but because they appear to point to a fundamental misconception of scientific method. The laboratory worker may justly demand of Professor Billia that the work of the laboratory be judged by its actual results and not by contrasting its methods with a conception of psychology it does not entertain. He may go further and insist that laboratories exist just in order to study the facts of mental life in the ways to which Professor Billia objects. But it is the misconception of scientific method to which it seems worth while to call particular attention. Who, for instance, would censure the astronomer for obscuring the vision of the heavens because he used mathematical physics in the study of them? Who would censure the chemist because in his laboratory he isolates factors which in nature always appear bound up with very complex phe-

nomena, and the operations of which may there be modified by unexpected influences? And, finally, where is the scientist who would seriously claim that the facts he observes are not by his observation and experimentation subjected to conditions different from those in which they naturally occur? Did he so claim, of what merit would be his experimenting? It would, therefore, appear that Professor Billia has brought in his three considerations an indictment not only against laboratory psychology, but also against laboratory methods generally. The aim of scientific method is to discover what the facts of nature will disclose when subjected to conditions of controlled experimentation. It is that which gives to experimental science its great power, which makes it a remarkable human achievement, and which places its results, measured by the standard of usefulness, so far in advance of the mere description of nature however beautiful and however suggestive.

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Aus der Werkstatt der Experimentellen Psychologie und Pädagogik. Herausgegeben von RUDOLPH SCHULZE. Mit besonderer Berücksichtigung der Methoden und Apparate. Nebst zwei Anhängen: I. Ein Neues Chronoscope. II. Instrumentarium für Seminare. Zum Selbststudium und zur Belebung des Psychologischen Unterrichts an Seminaren und andern höheren Unterrichtsanstalten. Mit 314 Abbildungen. Leipzig: R. Voigtländers Verlag. 1909. Pp. 292.

The author has stated the purpose and character of his book in the title. It consists of a description of the methods and apparatus of the modern psychological and pedagogical laboratory, and is intended for use in normal schools and for general reading by teachers and others who are interested in the methods of the newer psychology. It does not, therefore, pretend to be original in its material, but rather in the form of its presentation and in the scope of its contents. The form is determined by the character of the audience to which it is addressed, and the book is, therefore, written in a simple style and does not presuppose a knowledge of even the most elementary laboratory apparatus. It is, moreover, profusely illustrated so that the reader can get as clear and accurate an idea of the apparatus as is possible without direct contact with it.

The scope of the book may be indicated by the statement that it includes not only the ordinary methods of the psychological laboratory as well as certain others which are distinctly pedagogical in their character, but also an elementary presentation of the classical methods in the narrower sense of the term—the method of errors, etc. Furthermore, the author gives at the end an explanation of the mathematical procedure by which the amount of correlation between different mental processes is determined.

It is, of course, a necessary consequence of such breadth of scope and of the numerous illustrations—many of them full-page—that the treatment must be brief. The author often contents himself with merely an indication of the various methods by which a given subject may be in-

vestigated, with perhaps a statement as to which is best suited for pedagogical experiments and a very brief indication of the results which have been obtained. The reader obtains, so to speak, a bird's-eye view of the field of laboratory investigation with emphasis on the methods rather than on the results.

It has been said that a knowledge of psychological apparatus is not assumed. This is true. But a knowledge of the fundamental principles of psychology, while not explicitly assumed, is necessary for the appreciation of the significance of the methods described. The book is suited, therefore, to serve as a companion to a general psychology, but not as an introduction to the science. For his psychology the author holds, point for point, to Wundt's classification and treatment (as he himself clearly states), omitting only certain sections with which no experimental methods are directly connected. On the pedagogical side the author relies on Meumann's recent "Vorlesungen zur Einführung in die Experimentelle Pädagogik." He also draws, however, from a large body of special literature and has brought together a compilation from a very wide field.

The American reader will find himself unfamiliar with much of this literature, since it exists in German school and pedagogical periodicals. As an example may be cited a review of some work which the author himself published in *Neue Bahnen*. This work consisted in a study of the expressions assumed by children when looking at pictures which have various kinds of emotional effect. These expressions he calls "mimicry." The method was to choose twelve pictures, let a class of children look at them, and photograph them during the contemplation. These photographs were then laid before three "referees" whose task was, first, to describe the emotions expressed and, secondly, to choose the picture to which each emotion corresponded. The success of the referees was very striking.

The whole book is written in a most clear and vivid style, and with a skill in presentation which gives evidence of the author's experience and ability as a teacher.

In a supplement is described a new chronoscope of the author's own device. This was constructed for the purpose of overcoming the difficulties which attend the use of the Hipp chronoscope. These difficulties arise from two sources. First, the current must be of just the proper strength so that the pull of the magnet throws the clutch in with the same rapidity as the rapidity with which the spring throws it out. Secondly, the current must not pass through the magnet in one direction for more than a short length of time; otherwise the magnet will become permanent.

Schulze's chronoscope overcomes the first of these difficulties by employing the electromagnet for throwing the clutch both in and out. Thus it is only necessary to keep the current constant in order to produce the same speed of action in the successive cases. The second difficulty is overcome by employing an induction current instead of a direct current. Since the induction current is only a momentary current set up by opening or closing the primary circuit, it is impossible to set up a continuous current in the coils which operate the clutch. And since a "make" of the primary circuit must always be alternated by a "break," the coils

must have an equal number of currents passing through them in the one direction and in the other.

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An Experimental Study of Sleep. BORIS SIDIS. Boston: Badger. 1909. Pp. viii + 106.

In this work the author records the results of numerous experiments on the production of sleep in animals and in children, the characters of reactions found in sleeping individuals, and uses this material to construct a theory of sleep. In the discussion of his results we find much on allied states, hypnoidal and hypnotic, as well as on sleep. Much of the experimental part is similar to and in accord with the work of Heubel, and in the theoretical portion the main view-point of Claparède is taken.

Emphasis is laid on the psychic factors in sleep and any supposition of toxic influences or conditions is shown not to be necessary, and, in fact, to be contrary to certain facts that have been observed.

In addition to the three states commonly considered to be the only possibilities, sleep, waking, and hypnosis, Sidis differentiates a fourth state, intermediate between the hypnotic and sleep states, to which he has given the name hypnoidal. This state we pass through when going to sleep and also when awaking. We also have to pass through this state when being placed in a hypnotic condition, and we pass through it when returning to normal from the hypnotic state. An individual may be asleep, be partly "waked," and thus put into the hypnoidal state, and thence led into the hypnotic state. In this way the relationship of hypnosis and sleep is much more easily understood. At times it appears as if the author identified this intermediate, hypnoidal state with all subwaking states, but it is difficult to determine whether or not he believes the hypnoidal to be a special kind of subwaking state. This intermediate state is given two names, hypnagogic and hypnapagogic, depending upon the condition to which it leads, sleep or wakefulness.

It is in this intermediate state that Sidis locates dreams, for in it he finds a crowd of hallucinations. Another work is promised on this interesting topic, and we need not prematurely consider the author's views on the matter at the present time.

The general position of Claparède is taken, viz., that sleep is not a disease, it is not a pathological state, it is not due to toxins or autointoxication, and is not caused by cerebral or nervous anemia or hyperemia. Sleep is an active function, "as much of an instinct as hunger or sex." "Phylogenetically and ontogenetically, the sleep states of higher animals are developed out of undifferentiated, intermediary, subwaking, hypnoidal-like states found in the resting states of the lower representatives of animal life. The hypnoidal state is the primitive rest state out of which sleep arises. Briefly put, the hypnoidal state is the germ of sleep. Physiologically and psychologically considered, sleep is an actively induced passive state in relation to the external environment; the psychophysical systems have their threshold raised in relation to the external

stimulations; the rise of threshold is induced by a mass of impressions possessing little or no variability, by limitation or by relative withdrawal of stimulations, or, what is the same, by monotony of stimulations, and by limitation of voluntary movements." As compared with the rise of threshold in sleep, the author considers there is a lowering of the threshold in hypnosis, but the reviewer has not found any indication of the author's view of the threshold condition in the intermediate, hypnoidal state.

A further distinction between sleep and hypnosis is made, that in the former there is a relaxation of the attention, and in the latter there is a fixation of the attention.

It may be said that the monograph is a reprint from the *Journal of Abnormal Psychology,* without acknowledgment. A bibliography of about 250 titles is appended, but it has no relation to the matter of the monograph, for few of the books and articles are referred to in the body of the work, and some of those to which attention is called are not included in the bibliography. It is unfortunate that the author did not consider it necessary to be more specific in the bibliography, because dates, and, in referring to general works not especially pertaining to the subject, page references would have added to its value. Nearly half of the references are without any indication of date of publication, and there are no page references.

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JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. May, 1909. *The Idealism of Edward Caird* (pp. 259–280): JOHN WATSON. – Caird objected to any philosophy which ignores the fact that is the subject of knowledge. He could not admit that epistemology should be distinct from metaphysics. Idealism, for Caird, refuses to admit that the rationality of the universe as a whole is a debatable question. As Caird puts it: "The only reasonable controversy between philosophers must be, on the one hand, as to the nature of the all-embracing unity on which every intelligible experience must rest, and on the other hand as to the nature of the differences which it equally involves." *The Springs of Art* (pp. 281–298): J. MARK BALDWIN. – There are two springs of art, imitation and self-exhibition. But these do not produce different sorts of art. They are present in all art. *The Present Meaning of Idealism* (pp. 299–308): ERNEST ALBEE. – Both materialism proper and subjective idealism are things of the past. Progressive idealists believe as little as realists in original *a priori* principles prior to concrete experience. There is no essential quarrel between realism and idealism if both adopt the teleological standpoint. *Absolutism and Teleology* (pp. 309–318): A. W. MOORE. – Aims to state the present situation in the discussion between absolutists and evolutional empiricists with respect to its bearing on ethics. Can the ideal in con-

duct be absolute, all-inclusive, fixed, and given, or must it be constructed in the process where it functions? Can an absolutist be a consistent evolutionist? An absolute standard prior to process can admit only superficial evolution. *Reviews of Books:* W. WUNDT, *System der Philosophie,* by George S. Fullerton. JONAS COHN, *Voraussetzung und Ziele des Erkennens,* by Warner Fite. E. B. TITCHENER, *The Elements of Psychology of Feeling and Attention,* by Edwin B. Holt. *Notices of New Books. Summaries of Articles. Notes.*

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE. Band XV., Heft 3. April, 1909. *Kants Lehre von Ding an sich* (pp. 291–318): ANNA TUMARKIN. – In Kant's system the *given* of sensation is to be associated not with the *Ding an sich* but with the subjectivity of the individual. Hence the gate is not closed to a rationalistic monism, which rather is the goal of Kant's metaphysical aspirations. *Die Hegelsche Logik und der Goethesche Faust,* eine vergleichende Studie (pp. 319–341): J. FISCHER. – "Faust" is Hegelian throughout—in its theme, for example, self-active development, and in the circular movement of the drama through a negative phase, culminating in the recognition that truth is a way and a life, not a goal. *Schopenhauers Auffassung des Verhältnisses der mathematischen Begründung zur logischen* (pp. 342–364): O. JANSEN. – Schopenhauer's errors are in part that he proposes as improvements on mathematical demonstrations methods essentially the same, and that he mistakes definitions for principles. *Worin weicht Thomas bei der Darstellung und Beurtheilung Spinozas von Herbart ab?* (pp. 364–379): A. RICHTER. – Thomas in his "Spinozas Individualismus und Pantheismus" maintains that Spinoza used his mystical, monistic pantheism merely as a cloak and introduction to his atomistic, automatistic pantheism; while Herbart recognized in Spinoza a high-minded, inspiring, original thinker, but confused and far from thorough in his metaphysics. *Jahresbericht über die Philosophie im Islam* (pp. 383–428): M. HORTEN. – About twenty recent publications of ancient Mahommedan texts are critically reviewed, with special attention to Ibn-al-Arabi's Commentary on the Koran, A.D. 1317–1899. *Die neuesten Erscheinungen. Eingegangene Bücher.*

REVUE PHILOSOPHIQUE. June, 1909. *La logique expérimentale de J. M. Baldwin* (pp. 561–575): A. LALANDE. – An exposition of the thought in the second volume of Professor Baldwin's Genetic Logic. *La philosophie néerlandaise (1st. article)* (pp. 576–596): E. D'OLIVEIRA. – Holland has been hampered by a scholastic Calvinism which subordinated philosophy to religion. In the middle of the nineteenth century M. Opzoomer, the Mill of Holand, prepared the way for greater freedom. The present movement groups itself about M. Bolland, an Hegelian, and M. Bierens de Haan, a "militant" Spinozist. *Les bases psychologiques de l'élocution oratoire* (pp. 597–613): G. SAINT-PAUL. – Methods of preparing a discourse can be classified as graphic, visually or auditively premeditative, or verbo-motively premeditative. During delivery there is antecep-

tion, metaception, or paraception of the phrases by the speaker. *Notes et discussions. Antipragmatisme et hyperpragmatisme:* F. PAULHAN. *Activité mentales et synthèse:* G. DWELSCHAUVERS. *Analyses et comptes rendus. De la méthode dans les sciences:* ABEL REY. P. Hermant et A. van de Waele, *Les principales théories de la logique contemporaine:* A. LALANDE. Dr. Stephan Maticévic, *Zur Grundlegung der Logik:* JEAN DAGNAN-BOUVERET. S. Joteyko et M. Stefanowska, *Psycho-physiologie de la Douleur:* R. MEUNIER. R. Meunier, *LaHachich:* DR. CH. BLONDEL. Dr. Demetrius C. Nadejde, *Die Biologische Theorie der Lust und Unlust:* L. POITEVIN. J. Paulsen, *Das Problem der Empfindung:* L. POITEVIN. Clara und Williams Stern, *Erinnerung, Aussage und Luge in der ersten Kindheit:* G. L. DUPRAT. *Revue des périodiques étrangers.*

REVUE METAPHYSIQUE ET DE MORALE. May, 1909. *Une phase du développement de la pensée mathématique* (pp. 309–356): L. BRUNSCHVIEG. – The development of a mathematical system connotes a philosophy, as arithmetic pythagoreanism, and analytic geometry the philosophy of Spinoza and Malbranche. But modern analysis has not yet attained its philosophy. It has only been interpreted in terms of neo-pythagoreanism and neo-aristotelianism. *Sur le syllogisme de la première figure* (pp. 357–366): E. GOBLOT. – A criticism of M. Lachelier's interpretation of the major premise as implying a necessary relation instead of a constant relation as is the author's contention. *Correspondance inédite de Ch. Renouvier et de Ch. Secrétan (Suite)* (pp. 367–385). – Concerns chiefly the *Philosophie de la Liberté* with comments on current events, especially of 1871–2. *Sur le Pragmatisme de Nietzsche (Suite)* (pp. 386–412): R. BERTHELOT. – An analysis of the rationalistic and romantic elements in Nietzsche and a summary account of elements entering into other pragmatisms. *Études critiques. La religion d'aujourd'hui (suite et fin):* G. SOREL. *Questions pratiques. Conditions d'une doctrine morale éducative (suite et fin):* J. DELVOLVÉ. *Supplément.*

Bulletin de L'Institut Général Psychologique. 9e Année: No. 1. January–February, 1909. Paris: Institut Général Psychologique. Pp. 236.

Cooley, William Forbes. *The Individual: a Metaphysical Inquiry.* Archives of Philosophy. No. 3. Columbia Contributions to Philosophy, Vol. XVIII. No. 2. New York: The Science Press. Pp. 95.

Mondolfo, Rudolfo. *La filosofia del Feuerbach e le critiche del Marx. Cultura Filosofica:* March–June, 1909. Prato: Tipografia Carlo Collini. 1909. Pp. 56.

Mondolfo, Rudolfo. *Studî Sui Tipi Rappresentativi: Richerche sull' importanza dei movimenti nell'imaginazione, nelle funzioni del linguaggio, nelle pseudoallucinazioni e nella localizzazione delle imagini. Rivista di Filosofia:* Anno. 1., No. 2. 1909. Bologna-Modena: A. F. Formiggini. 1909. Pp. 56.

Mondolfo, Rudolfo. *Tra il diritto di natura e il comunismo: Studi di storia e di filosofia.* Parte 1ª. Mantova, Italy: Prem. Tip. degli Operai Via F. lli Bandiera No. 8. 1909. Pp. 70.

NOTES AND NEWS

THE Government Hospital for the Insane at Washington, D. C., has just issued a pamphlet entitled "Bulletin No. 1" under the editorship of Dr. William A. White. The Bulletin contains the papers presented by the members of the staff of the hospital at a series of staff meetings of the past winter. The purpose of the publication is set forth by Dr. White in the preface of the Bulletin, from which we quote the following statement: "This bulletin is put forth as an effort toward fulfillment of what is conceived to be the true position of a hospital for the insane—it should not be a center for psychiatric information, but a center for the distribution of that information." Some of the papers published in the Bulletin are somewhat general in character, owing to the fact that they were originally addressed to the members of the medical profession in Washington, and are, in fact, designed with special reference to the general practitioner. Many, however, comprise the results of original research work, and will, we think, be of interest to psychologists. We quote in full the contents of the Bulletin: "The relation of the hospital for the insane to the medical profession and to the community," William A. White; "The present state of psychiatry in America," Henry W. Miller; "The morbid anatomy of mental disease," I. W. Blackburn; "The functional view of the insanities," Shepherd Ivory Franz; "The standpoint of histopathology in the study of mental disease," Nicolas Achúcarro; "The use of association tests in determining mental contents," Shepherd Ivory Franz and William A. White; "A case of unilateral hallucinosis (alcoholic)," William A. White; "A case of delirium produced by bromides," Mary O'Malley and Shepherd Ivory Franz; "The cytological examination of the cerebrospinal fluid," William H. Hough.

THE death of Professor Simon Newcomb was announced in the last issue of the JOURNAL. We quote from the *Nation* for July 22 the following notice: "We are informed that the library of the late Professor Simon Newcomb is offered for sale either *en bloc* or in parts. The collection is naturally rich in books on astronomy, mathematics, and physics, and also has a large number of works on economical subjects. A typewritten catalogue of the library had been prepared under Professor Newcomb's personal direction. To any one contemplating purchase of the library this catalogue will be sent on application to the executor of the estate, at No. 1620 P Street, Washington, D. C." Until about the middle of September the library will remain in place, and may be examined by persons interested in securing this collection. It was, we understand, the hope of Professor Newcomb that his library would help in the training of some future scientist, or in his work. He was, therefore, especially desirous that the library should not be divided, but that it should belong to some institution in which researches in astronomy and kindred subjects were carried on. With this end in view, the value of the library is estimated at only $7,000, which is the estimated cost of the purchased books alone, although the library contains a large number of transactions of societies and other gift books, together with many thousand pamphlets, which are

classified and arranged for easy reference and which include reprints of memoirs of astronomy, mathematics, and physics. The library, it is believed, is the most complete of its kind, with the exception, perhaps, of that at Harvard University, including the Harvard Observatory library. In addition to the library, there are several hundred books, reports, and volumes of periodicals on economic subjects. This smaller collection, which has not as yet been catalogued, is also for sale, either with or apart from the library.

THE plan, proposed at the Fourth International Congress of Philosophy, held at Heidelberg last September, to have an annual bibliography of philosophical publications, has been put into execution. The first issue of this bibliography, which is to be entitled *Die Philosophie der Gegenwart Eine international Jahresuebersicht,* will, it is expected, appear at the close of the present year, at the University of Weis at Heidelberg. It will contain a list of philosophical works published in 1908, and will be divided into the three following sections: (1) one or two articles on national or international questions of general interest; (2) a list of publications in the following order: (*a*) history of philosophy; (*b*) general, metaphysical philosophy; (*c*) psychology; (*d*) logic and the theory of knowledge; (*e*) ethics and sociology; (*f*) esthetics; (*g*) philosophy of religion; (3) a detailed index of the two preceding sections. The second section will contain, in addition to the list of publications already described, a brief summary of the contents of each of these works, and an account of the reports and criticisms published on the subject of which the work in question treats. The editing of this annual bibliography will be in charge of an international committee composed of representatives from Germany, France, Italy, England, Russia, and America. The purpose of this new annual is similar to that which animates the International Congress, namely: to bring together philosophers of all countries, to facilitate the mutual acquaintance of their works, and to promote their concerted action.

ANNOUNCEMENT is made of the death in London on July 15 of Father George Tyrrell, the leader of the modernistic movement in England and a writer whose work is suggestive and interesting. The writings of Father Tyrrell comprise a large number of books and numerous articles and essays appearing in the various periodicals. We quote from the list of his books those of especial and wide interest. "External Religion: its Use and Abuse"; "The Program of Modernism: a reply to the encyclical of Pius X, Pascendi dominici gregis, with the text of the encyclical in an English version from the Italian by the Reverend George Tyrrell, with an introduction by A. Leslie Lilley"; "Medievalism: a reply to Cardinal Mercier." The contents of one of his recent books, namely: "Through Scylla and Charybdis; or the Old Theology and the New," is perhaps suggestive of the scope of his interest. We quote from the table of contents: I. Introduction; II. Reflection on Catholicism; III. Lex orandi and lex credendi; IV–V. Semper eadem; VI. Mysteries a necessity of life; VII. Pragmatism; VIII. Rights and limits of Theology; IX. Prophetic history; X. The corporal mind; XI. Revelation; XII. "Theologism"; XIII. "From Heaven or of men." Among the essays of Father Tyrrell which

have appeared in the periodicals may be mentioned "The Clergy and the Social Problem," *American Catholic Quarterly,* Vol. 22, pp. 151–9; "Prospects of Modernism" and "Bergson on Creative Evolution," *Hibbert Journal,* January, 1908; "Limits of the Development Theory," *Catholic World,* September, 1905.

THE *Rivista di Psicologia Applicata* contains, in its current issue, a notice of the death of Giovanni Vailati, which occurred on the eighteenth of May of this year, at the early age of forty-six years. The review also gives a brief appreciative notice of his life and work. The note calls attention to the variety of his interests, including mathematics, philology, and economics, as well as psychology and logic, and to the essential alertness and vivacity of his mental temperament. The brief account of his personality leaves the impression of an unusually sympathetic and genial, as well as a sincere mind. The *Rivista* announces a collected volume of all his writings, edited by Professor Calderoni, of Florence, to whom subscriptions (the cost being 12 lire) may be addressed, at No. 3, Via Solferino. Professor Vailati, it may be added, was one of the foremost among the band of Italians who have taken an active interest in the progress of philosophic thought in America, and will be recalled by readers of this JOURNAL as a valued contributor to its pages, his articles entitled "The Attack on Distinctions" and "On Material Representations of Deductive Processes" having appeared in its volumes for 1907 and 1908, respectively.

DR. W. H. SHELDON, preceptor of philosophy in Princeton University, has been made professor in philosophy in Dartmouth College. Dr. Sheldon took his A.B. degree at Harvard University in 1895. In 1896 he received the degree of A.M. and in 1899, the degree of Ph.D. He was assistant in philosophy at Harvard from 1898–1899, and in 1899–1900, he held the same position in the University of Wisconsin. During the year of 1900–1901 Dr. Sheldon was teaching fellow at Harvard University. From 1901–1903 he was assistant in philosophy in Columbia University; from 1903–1905, tutor in philosophy in the same university. Since 1905, Dr. Sheldon has been preceptor of philosophy at Princeton University.

DR. J. MARK BALDWIN, professor of philosophy and psychology in Johns Hopkins University, has recently resigned. Dr. Baldwin has this spring been delivering a series of lectures under the auspices of the Mexican Department of Public Instruction on university organization and scientific psychology. At the Darwin centenary at the University of Cambridge Dr. Baldwin was present as the representative of Johns Hopkins University and of the Mexican Department of Public Instruction. Dr. Baldwin expects to remain abroad some time.

THE JOURNAL desires to correct an error which appeared in its last issue for July 22, in the notice of the meeting of the Sixth International Congress of Psychology. The announcement was there made that Professor M. Meyer, of Columbia, would be one of the Americans to participate in the individual discussions at the Congress. Professor Meyer is from the University of Missouri.